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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,705	02/18/2004	David Charles Ross	00169.101496.	9534
5514	7590	02/22/2006		
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER MOAZZAMI, NASSER G	
			ART UNIT	PAPER NUMBER
			2187	
DATE MAILED: 02/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/779,705	Applicant(s) ROSS, DAVID CHARLES	
	Examiner Nasser G. Moazzami	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/13/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. Information Disclosure Statement submitted by applicant on 01/13/2006 has been considered. See attached PTO-1449.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stracovksy (US Patent No. 6,510,474) or Nizar (US Patent No. 6,212,611) in view of a well known feature.

As per claims 1, 5-6, and 10 Stracovksy and Nizar discloses an arbitrator for reordering access requests to a memory system to reduce memory system conflicts, said arbitrator comprises: a transaction buffer for buffering said access requests; an output counter for counting access requests issued by said arbitrator; a mapping table for mapping at least said output counter to said access requests in said transaction buffer; and a reordering unit for dynamically re-ordering entries in said mapping table such that said mapping points to said access requests in an issue order wherein

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memory system conflicts are reduced **[Stracovksy teaches buffering commands in a queue with a time factor, detecting collision between the current command and the issued command, and reordering the commands (column 25, lines 26 through column 26, line 1). Nizar teaches buffering commands in the queue, scheduling the commands by comparing the current commands with the commands in the queue, detecting potential timing or rule violation and avoiding the violation by modifying the order (column 5, line 64 through column 6, line 54)]**. Stracovksy and Nizar disclose the claimed invention for reducing the memory conflicts, but fail to specifically disclose the output counter and mapping the output counter by using a mapping table. However, mapping a counter through the use of a mapping table is well known in the art, thereby official notice is taken **[for example see US Patent No. 6,580,712 issued to Jennings (column 1, line 57 through column2, line 18; column 3, line 50 through column 4, line 6 and column 4, lines 29-50)]**. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the current invention to include the hash table and the method of mapping into Stracovksy or Nizar's buffering of the commands in order to be able to access the required data.

Allowable Subject Matter

4. Claims 2-4, and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G. Moazzami whose telephone number is (571) 272-4195. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NASSER MOAZZAMI
PRIMARY EXAMINER

02/16/2006